Q-275

SVE BULLETIN

SPECIAL VEHICLE ENGINEERING – BODY BUILDERS ADVISORY SERVICE

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A-Pillar Alteration to Mount Spotlight on F150 and Super Duty Vehicles

Models Affected: 2017 and subsequent model year Super Duty, 2015 F150 and subsequent years – All Models

Issue: Effect on A pillar structural integrity when mounting an aftermarket spotlight

Guidance: Ford Motor Company has conducted CAE analysis to evaluate vehicle structural performance to FMVSS 216a requirements. This was done to determine the effect of A pillar alteration with a maximum ½" diameter hole, allowing for a hand operated spotlight to be mounted through the A pillar structure. This hole size is generally specified for mounting a spot light.

Based on the analysis, upfitters should consider mounting the spotlight within the range defined by Figure 1. This graphic defines the area from the hinge pillar / A Pillar joint to a location up to 150 mm. up the A pillar that the upfitter should consider for mounting the spotlight.

Note that the final responsibility for the compliance of the completed vehicle rests with the vehicle modifier to certify, as prescribed by Title 49, Code of Federal Regulations, Part 567.5, that the vehicle conforms to all applicable Federal Motor Vehicle Safety Standards.

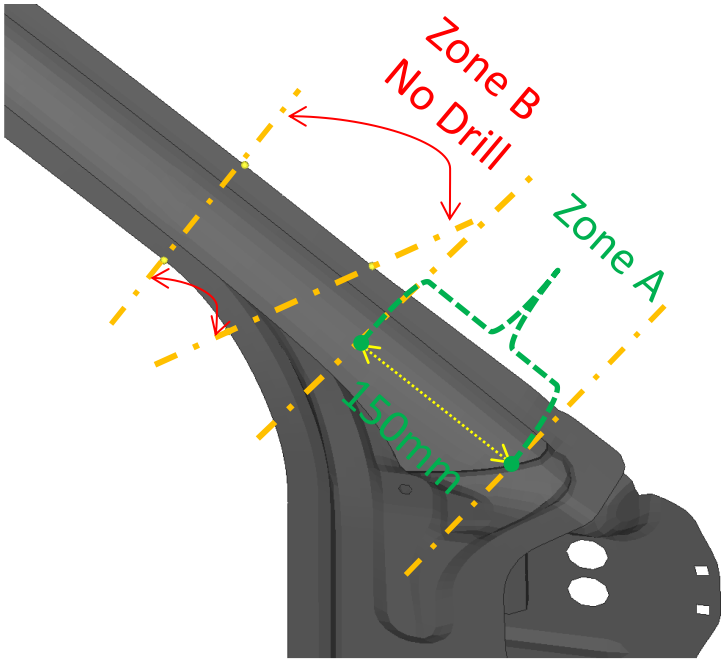

Figure 1. Location of region identified for spotlight mounting:

Drill hole in Zone A from A-pillar outer surface at the angle required to mount the spotlight. Do not drill the A-pillar and its components at Zone B (outer surface, hydro form tube and inner most surface).

The upfitter must avoid any components/ assemblies held within or between the A Pillar structure and the plastic interior trim when drilling attachment holes.

Figure 2 identifies a cross sectional view looking down on the A pillar from above showing the structural layers of the A-pillar.

Figure 3 shows the interior wall attachment of the air bag tether. Care must be taken when drilling through the a pillar to avoid the tether .

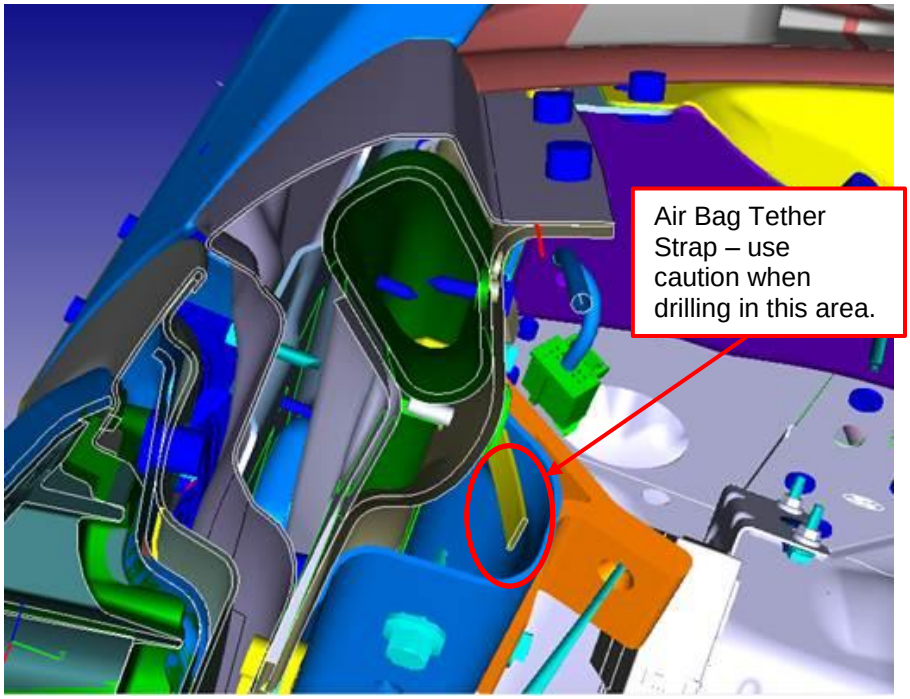

Figure 2. Cross section of the A pillar to show structural layers

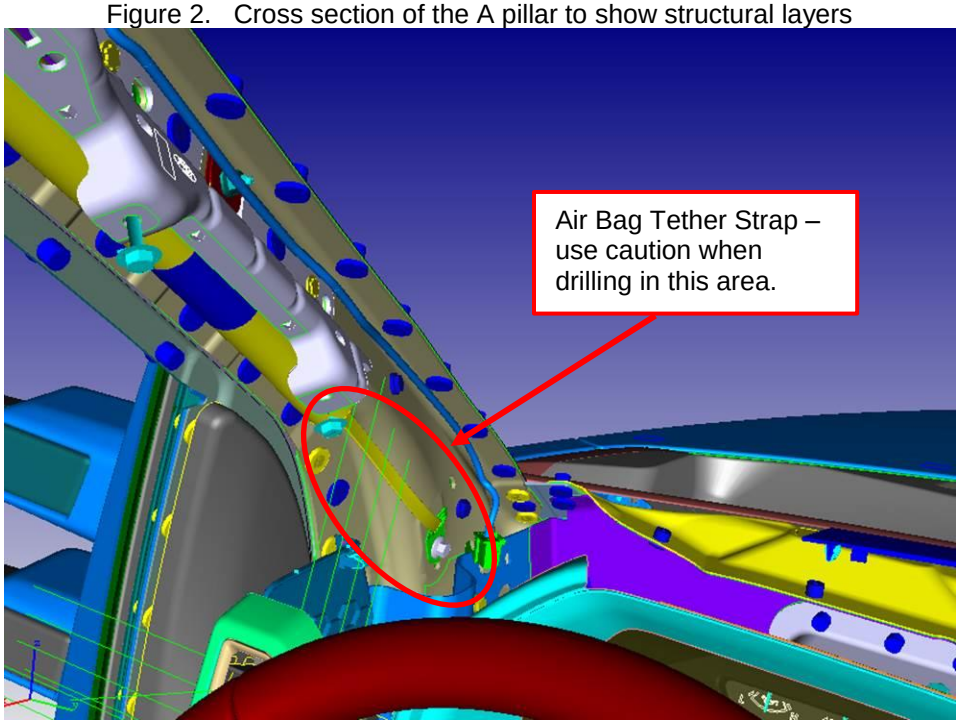

Figure 3. Hinge Pillar with the trim removed to show the air bag tether location.